

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-7 and 9-15 are pending in this application. Claims 1, 9, and 13 are amended. Claims 1, 9, and 13 are independent. Reconsideration of this application, as amended, is respectfully requested.

Drawings

The drawings filed with the present application are approved. The Examiner is respectfully requested to provide a Notice of Draftsperson's Patent Drawing Review, Form PTO-948, confirming approval of the formal drawings by the Official Draftsperson, with the next official communication is respectfully requested.

Rejections Under 35 U.S.C. §103(a)

Claims 1-3, 5-7, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Matsui (U.S. 6,471,504) in view of Bacchi et al. (U.S. 6,105,454).

Claim 4 stands rejected as being unpatentable Matsui in view of Bacchi et al. as applied to claims 1-3, 5-7, 14 and 15 in further view of Hashimoto et al. (U.S. 5,860,331).

Claims 9-12 stand rejected as being unpatentable over Matsui in view of Bacchi et al. and Hashimoto et al.

These rejections are respectfully traversed.

Amendments to Independent Claims 1 and 9

While not conceding the appropriateness of the rejections, but merely to advance prosecution, independent claims 1 and 9 are amended to recite a combination of elements directed to a robot for a production machine, such that when the first arm and the second arm are extended to position the chuck at a center of the production machine, the second arm is substantially entirely overlapped between a movable mold and a stationary mold of the production machine.

Full support for extending the first arm 5 and the second arm 11 so as to position the chuck 15 at a center of the production machine 1, thus causing the second arm 11 to be substantially entirely overlapped between a movable mold Cm and a stationary mold Cc of the production machine 1 can be seen in FIGS. 1 and 2 of the present application.

It is respectfully submitted that the instantly amended claims patentably distinguish over the art cited by the Examiner, including Matsui, Bacchi et al. and Hashimoto et al. In contrast to the presently claimed invention, none of these cited references teaches or suggests a combination of elements such that when the first arm and the second arm are extended to position the chuck at a center of the production machine, the second arm is substantially entirely overlapped between a movable mold and a stationary mold of the production machine. For example, the Examiner is directed to FIG. 4 of the Matsui document which fails to show that which is claimed in the present invention. However, both of the Bacchi et al. and the Hashimoto et al. documents are silent about a second arm being substantially entirely overlapped between molds of a production machine.

Accordingly independent claims 1 and 9, and the claims depending therefrom, are in condition for allowance.

Amendments to Independent Claim 13

Claim 13 is amended to recite a combination of elements directed to a robot for a production machine a rotation mechanism is disposed at an upper end of an injection molding machine, the rotation mechanism including a horizontal arm whose one end is supported to be rotatable about an axis extending in the vertical direction and in a position above tie bars of the injection molding machine.

Full support for a rotation mechanism 24 disposed at an upper end 25 of an injection molding machine 1, the rotation mechanism 24 including a horizontal arm 23 whose one end 25r is supported to be rotatable about an axis extending in the vertical direction and in a position above tie bars 21 of the injection molding machine 1 can be seen in FIG 4 of the present application.

It is respectfully submitted that the instantly amended claims patentably distinguish over the art cited by the Examiner, including Matsui, Bacchi et al. and Hashimoto et al. In contrast to the presently claimed invention, none of the cited references teaches or suggests a combination of elements a rotation mechanism is disposed at an upper end of an injection molding machine, the rotation mechanism including a horizontal arm whose one end is supported to be rotatable about an axis extending in the vertical direction and in a position above tie bars of the injection molding machine. Moreover Broderick, as cited in the Office

Action dated November 19, 2002, merely discloses a horizontal robot arm that moves between tie bars.

Accordingly, independent claim 13 and the claims depending therefrom are in condition for allowance.

In view of the foregoing, it is respectfully submitted that independent claims 1, 9, and 13 are not disclosed or made obvious by the prior art of record, including Matsui, Bacchi et al., and Hashimoto et al. Since the dependent claims depend directly or indirectly from allowable independent claims 1, 9, and 13, these claims are also allowable for at least the reasons set forth above, as well as the additional limitations set forth by these claims. Therefore, reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) and allowance of all claims are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

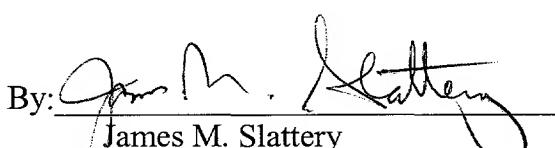
However, if there are any outstanding issues, the Examiner is invited to telephone Carl Thomsen, Reg. No. 50,786, at 703-205-8000 in an effort to expedite prosecution.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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